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**west virginia** department of environmental protection

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Office of Oil and Gas  
601 57th Street SE  
Charleston, WV 25304  
(304) 926-0450  
(304) 926-0452 fax

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
www.dep.wv.gov

February 27, 2015

**WELL WORK PERMIT**  
**Secondary Recovery Well**

This permit, API Well Number: 47-8704758, issued to HG ENERGY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin  
Chief

Operator's Well No: C. MCGRAW 115  
Farm Name: ATKINSON, DELORES (TRUSTEE)  
**API Well Number: 47-8704758**  
**Permit Type: Secondary Recovery Well**  
Date Issued: 02/27/2015

**Promoting a healthy environment.**

## PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

### CONDITIONS

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1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.





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<b>Total Postage &amp; Fees</b>	<b>\$ 7.61</b>



Sent To: **Richard Fisher et al.**  
 Street, Apt. No.; or PO Box No.: **4513 clay Road** ✓  
 City, State, ZIP+4: **Spencer, WV 25276**

PS Form 3800, August 2006 See Reverse for Instructions

7014 0510 0000 4074 5361

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Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$ 7.40</b>



Sent To: **Reva Snodgrass** ✓  
 Street, Apt. No.; or PO Box No.: **3740 Tranquility Drive**  
 City, State, ZIP+4: **Melbourne, FL 32934**

PS Form 3800, August 2006 See Reverse for Instructions

Received  
 Office of Oil & Gas  
 JAN 22 2015

WW-2B1  
(5-12)

Well No. Charles McGraw 115

West Virginia Department of Environmental Protection  
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name Sturm Environmental  
Sampling Contractor Sturm Environmental

Well Operator HG Energy, LLC  
Address 5260 Dupont Road  
Parkersburg, WV 26101  
Telephone 304-420-1119

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underlining which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

- Surface Owners With Water Sources Identified for Sampling/Analysis:
- \* Reva Snodgrass  
3740 Tranquility Drive  
Melbourne FL 32934
  - \* Caroline Miller  
4326 Clay Road  
Spencer WV 25276
  - \* Richard Fisher  
4513 Clay Road  
Spencer WV 25276
  - \* Casie Roberts  
4454 Clay Road  
Spencer WV 25276

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Office of Oil & Gas

JAN 22 2015

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM  
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name HG Energy, LLC OP Code 494497948

Watershed Rush Run Quadrangle Looneyville 7.5'

Elevation 1111' County Roane District Smithfield

Description of anticipated Pit Waste: Fluids encountered while stimulating subject well

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes \_\_\_\_\_ No X

Will a synthetic liner be used in the pit? Yes. If so, what mil.? 20 mil

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number 25-561 )
- \_\_\_\_ Reuse (at API Number \_\_\_\_\_)
- \_\_\_\_ Off Site Disposal (Supply form WW-9 for disposal location)
- \_\_\_\_ Other (Explain \_\_\_\_\_)

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air, Fresh Water

-If oil based, what type? Synthetic, petroleum, etc. NA

Additives to be used? Water, Soap, KCl

Will closed loop system be used? No

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Leave in pit

-If left in pit and plan to solidify what medium will be used? Cement, lime, sawdust Native soil, cement, lime

-Landfill or offsite name/permit number? \_\_\_\_\_

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Diane White

Company Official (Typed Name) Diane White

Company Official Title Agent

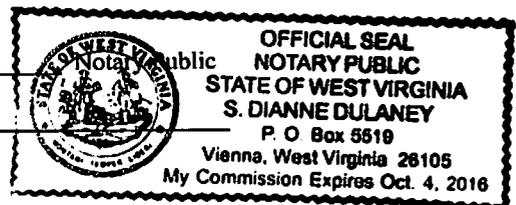
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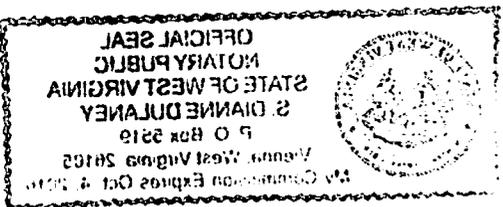
Subscribed and sworn before me this 16th day of January, 20 15

[Signature]

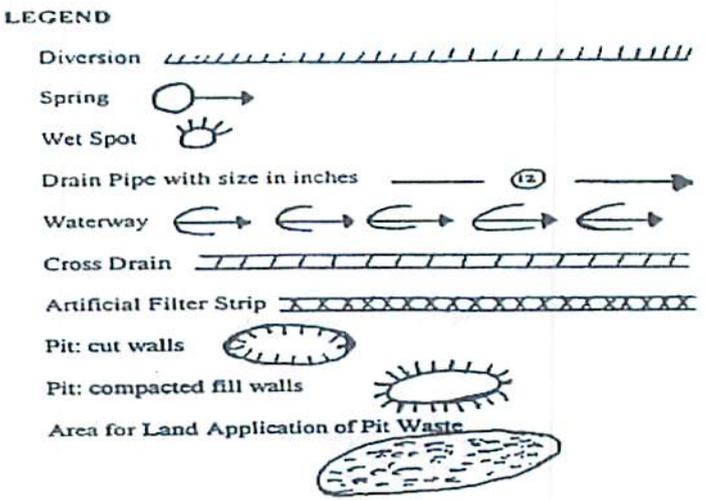
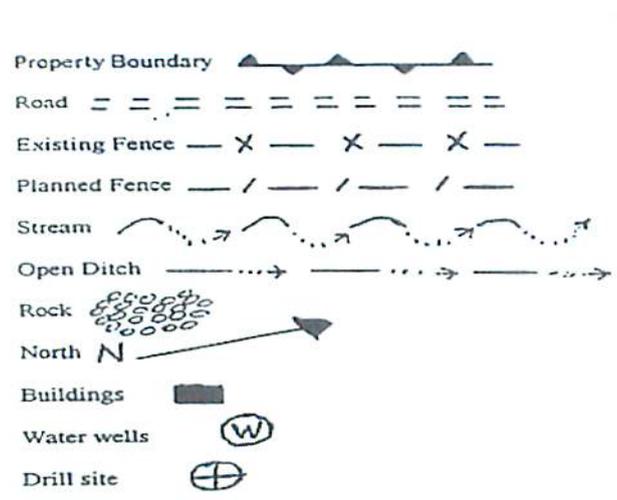
My commission expires Oct. 4, 2016



Received  
Office of the  
Notary Public



Notary Public  
S. Dianne Dunaway



Proposed Revegetation Treatment: Acres Disturbed 1.8 Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)

Mulch Straw 2 Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre	Seed Type	Area II	lbs/acre
Tall Fescue		40	Tall Fescue		40
Ladino Clover		5	Ladino Clover		5

Proper sediment control should be in place at all times.

Attach:  
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]  
Comments: \_\_\_\_\_

Title: Inspector Date: 1/20/15

Field Reviewed?  Yes  No

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Office of Oil & Gas  
JAN 22 2015

SUBJECT WELL  
Charles McGraw No.115



◆ Denotes Potential Water Supply Source and Surface Owner (From Aerial Photography)

Section of  
Looneyville 7.5' Quadrangle  
SCALE 1"=1000'



ADDRESS PARKERSBURG, WV 26101

WELL OPERATOR H.G. ENERGY, LLC

TARGET FORMATION BIG INJUN

PLUG & ABANDON CLEAN OUT & REPLUG

OTHER PHYSICAL CHANGE IN WELL (SPECIFY) WELL WILL BE DRILLED DIRECTIONALLY (S 51°30' E 710')

STIMULATE X PLUG OFF OLD FORMATION PERFORATE NEW FORMATION

PROPOSED WORK: DRILL X CONVERT DRILL DEEPER REDRILL FRACTURE OR

OIL & GAS ROYALTY OWNER GEORGE W. CARR ET AL LEASE ACREAGE 75.00 ACRES +/-

SURFACE OWNER DOLORES ATKINSON (TRUSTEE), RICHARD & RONALD FISCHER ACREAGE 40.00 ACRES +/-

QUADRANGLE LOONEYVILLE 7.5, DISTRICT SMITHFIELD

LOCATION: ELEVATION 1111', WATERSHED RUSH GREEK OF HENRYS FORK

WELL TYPE: OIL GAS LIQUID INJECTION X WASTE DISPOSAL HORIZONTAL

PROVEN SOURCE OF ELEV. MAPPING GRADE GPS

ACCURACY 1/200 MINIMUM DEGREE OF

SCALE 1" = 1000' DRAWING # 14-033

JOB # 14-033

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

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STATE OF WEST VIRGINIA

OFFICE OF ENVIRONMENTAL PROTECTION

OFFICE OF OIL AND GAS

WOODY LAND SURVEYING, LLC

ST. MARYS, WV 26170

JOSHUA E. MOODY, P.S. 2020

DATE 12/15/14

OPERATOR'S WELL C. MCGRAW # 115

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